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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/757,427 | 01/10/2001 | Ian R. Finlay | CA9-2000-0015/1852P | 8482 |

7590 08/01/2003
SAWYER LAW GROUP LLP
P.O. Box 51418
Palo Alto, CA 94303

EXAMINER

LY, ANH

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2172

DATE MAILED: 08/01/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,427

Applicant(s)

FINLAY ET AL.

Examiner

Anh Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 16-18 have been added.
2. Claims 1-18 are pending in this application.

Response to Arguments

3. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in

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order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,363,387 issued to Ponnekanti et al. (hereinafter Ponnekanti).

With respect to claim 1, Ponnekanti discloses utilizing a query processor to call a data manager and request the return of data from the set of data (database table storing data pages for query processing as data manager: col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14); allowing the data manager to locate query-specified data on a stabilized data page (data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32) and make a determination regarding the query-specified data (locating data page and maintaining the data page: col. 8, lines 38-46); utilizing the data manager to write the query-specified data on the stabilized data page to a buffer based on the determination while maintaining the stabilization of the data page (manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47); and utilizing the query processor to retrieve the query-specified data from the buffer (col. 1, lines 40-50: extracting data page from database table where is storing data page; and col. 10, lines 52-67 and col. 11, lines 1-7).

Ponnekanti does not clearly disclose, "to write the query-specified data on the stabilized of data page." However, Ponnekanti discloses the manipulating operations on the data page such as inserting, modifying and deleting (col. 16, lines 5-30, col. 2, lines 11-32 and col. 9, lines 45-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the manipulation operations for data page storing in the table (col. 16, lines 5-30) for reducing overhead as taught by Ponnekanti (col. 3, lines 22-30) because it would have made method for processing data page in the table being optimizing the query processing (col. 4, lines 35-44) and reducing the overhead of locking and increasing the concurrency, a particular

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performance advantage of the technique in querying data page (col. 10, lines 21-26) and this method would provide the index manager to locate the index and continue scanning the table at the next record row (Ponnekanti – col. 16, lines 20-40) in the fetching index-data environment.

With respect to claim 2, Ponnekanti discloses wherein the determination involves determining whether the query-specified data is to be ignored, consumed, or returned to the query processor (col. 7, lines 50-52 and col. 12, lines 10-33).

With respect to claim 3, Ponnekanti discloses wherein the determination is that the query-specified data is to be returned to the query processor (col. 7, lines 50-52 and col. 12, lines 10-33; and col. 15, lines 45-56).

With respect to claim 4, Ponnekanti discloses locating a page containing query-specified data (col. 8, lines 38-46); stabilizing the page (data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7); and accessing the page (col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8).

With respect to claim 5, Ponnekanti discloses data manager writes all the query-specified data on the page to the buffer (manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47).

Claim 6 is essentially the same as claim 1 except that it is directed to a system rather than a method (database table storing data pages for query processing as data manager: col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; locating data page and maintaining the data page: col. 8, lines 38-46; manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47; and col. 1, lines 40-50: extracting data page from database table where is storing data page; and col. 10, lines

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52-67 and col. 11, lines 1-7), and is rejected for the same reason as applied to the claim 1 hereinabove.

Claim 7 is essentially the same as claim 2 except that it is directed to a system rather than a method (col. 7, lines 50-52 and col. 12, lines 10-33), and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 8 is essentially the same as claim 3 except that it is directed to a system rather than a method (col. 7, lines 50-52 and col. 12, lines 10-33; and col. 15, lines 45-56), and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 9 is essentially the same as claim 4 except that it is directed to a system rather than a method (col. 8, lines 38-46; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8), and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 10 is essentially the same as claim 5 except that it is directed to a system rather than a method (manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47), and is rejected for the same reason as applied to the claim 5 hereinabove.

Claim 11 is essentially the same as claim 1 except that it is directed to a computer readable medium rather than a method (database table storing data pages for query processing as data manager: col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; locating data page and maintaining the data page: col. 8, lines 38-46; manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47; and col. 1, lines 40-50: extracting data page from database table where is storing

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data page; and col. 10, lines 52-67 and col. 11, lines 1-7), and is rejected for the same reason as applied to the claim 1 hereinabove.

Claim 12 is essentially the same as claim 2 except that it is directed to a computer readable medium rather than a method (col. 7, lines 50-52 and col. 12, lines 10-33), and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 13 is essentially the same as claim 3 except that it is directed to a computer readable medium rather than a method (col. 7, lines 50-52 and col. 12, lines 10-33; and col. 15, lines 45-56), and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 14 is essentially the same as claim 4 except that it is directed to a computer readable medium rather than a method (col. 8, lines 38-46; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8), and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 15 is essentially the same as claim 5 except that it is directed to a computer readable medium rather than a method (manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47), and is rejected for the same reason as applied to the claim 5 hereinabove.

With respect to claim 16, Ponnekanti discloses utilizing a query processor to call a data manager and request the return of data from the set of data (database table storing data pages for query processing (data manager): col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14; col. 1, lines 40-50); allowing the data manager to locate query-specified data by: locating a data page containing query-specified data (locating data page and maintaining data page: col. 8, lines 38-46); stabilizing the data page (data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32); and accessing the data page (col. 8, lines

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38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8); utilizing the data manager to make a determination regarding the query-specified data and to write the query-specified data on the stabilized data page to a buffer (manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47); and utilizing the query processor to retrieve the query-specified data from the buffer (col. 8, lines 38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8).

Ponnekanti does not clearly disclose, "to write the query-specified data on the stabilized of data page." However, Ponnekanti discloses the manipulating operations on the data page such as inserting, modifying and deleting (col. 16, lines 5-30, col. 2, lines 11-32 and col. 9, lines 45-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the manipulation operations for data page storing in the table (col. 16, lines 5-30) for reducing overhead as taught by Ponnekanti (col. 3, lines 22-30) because it would have made method for processing data page in the table being optimizing the query processing (col. 4, lines 35-44) and reducing the overhead of locking and increasing the concurrency, a particular performance advantage of the technique in querying data page (col. 10, lines 21-26) and this method would provide the index manager to locate the index and continue scanning the table at the next record row (Ponnekanti – col. 16, lines 20-40) in the fetching index-data environment.

Claim 17 is essentially the same as claim 16 except that it is directed to a system rather than a method (database table storing data pages for query processing (data manager): col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14; col. 1, lines 40-50; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; locating data page and maintaining data page: col. 8, lines 38-46; col. 8, lines 38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8; manipulation or

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operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47; and col. 8, lines 38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8), and is rejected for the same reason as applied to the claim 16 hereinabove.

Claim 18 is essentially the same as claim 16 except that it is directed to a computer readable medium rather than a method (database table storing data pages for query processing (data manager): col. 8, lines 6-20; and query processing calls to access data page table as a set of data: col. 13, lines 8-14; col. 1, lines 40-50; data page storing in the table with indexing: col. 9, lines 1-13 and col. 10, lines 28-32; locating data page and maintaining data page: col. 8, lines 38-46; col. 8, lines 38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8; manipulation or operations on index page or data page in the table: col. 16, lines 5-30; also see buffer manager for data page: col. 10, lines 46-47; and col. 8, lines 38-46; col. 8, lines 6-20; see fig. 2B and col. 9, lines 1-7; col. 10, lines 54-67, col. 11, lines 59-67 and col. 12, lines 1-8), and is rejected for the same reason as applied to the claim 16 hereinabove.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Contact Information

8. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527 or via E-Mail: **ANH.LY@USPTO.GOV**. The examiner can be reached on Monday – Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 746-7238 (after Final Communication)

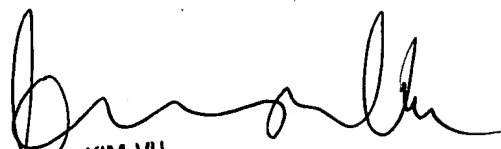
or: (703) 746-7239 (for formal communications intended for entry)

or: (703) 746-7240 (for informal or draft communications, or Customer Service Center, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

ALP
Jul. 17th, 2003


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100